IN THE CLAIMS:

Please amend the claims as follows:

1. (currently amended) An assay for detecting type IV cytosolic phospholipase A_2 ($cPLA_2$) protein or a protein immunologically homologous to type IV $cPLA_2$, the assay comprising:

   i) obtaining a sample of red blood cells separated from whole blood, and

   ii) detecting said type IV cytosolic phospholipase A_2 ($cPLA_2$) protein or said protein immunologically homologous thereto in or on said red blood cells with an antibody to type IV $cPLA_2$ protein.

2. (previously presented) An assay according to claim 1 for use in the diagnosis of a disease in which dysfunction of cell signalling systems involving fatty acids having three or more carbon - carbon double bonds is implicated.

3. (previously presented) An assay according to claim 1 for use in monitoring the effectiveness of medication administered to a patient suffering from a disease in which dysfunction of cell signalling systems involving fatty acids having three or more carbon-carbon double bonds is implicated.

4. (currently amended) An assay according to claim 1 for use in drug development for a disease in which dysfunction of cell signalling systems involving fatty acids having three or more carbon - carbon double bonds is implicated.

5. (currently amended) A method of diagnosis of a disease in which dysfunction of cell signalling systems involving fatty acids having three or more carbon-carbon double bonds is implicated, said method comprising:

i) obtaining a sample of red blood cells separated from whole blood, and

ii) detecting type IV cytosolic phospholipase A_2 ($cPLA_2$) protein or a protein immunologically homologous to type IV $cPLA_2$ in or on red blood cells with an antibody to type IV $cPLA_2$ protein.

6. (currently amended) A method of monitoring the effectiveness of medication administered to a patient suffering from a disease in which dysfunction of cell signalling systems involving fatty acids having three or more carbon - carbon double bonds is implicated, said method comprising:

i) obtaining a sample of red blood cells separated from whole blood, and

ii) detecting type IV cytosolic phospholipase A_2 ($cPLA_2$) protein or a protein immunologically homologous to type IV $cPLA_2$ in or on red blood cells with an antibody to type IV $cPLA_2$ protein.

7. (currently amended) A method of drug development for a disease in which dysfunction of cell signalling systems involving fatty acids having three or more carbon - carbon double bonds is implicated, said method comprising:

i) obtaining a sample of red blood cells separated from whole blood, and

ii) detecting type IV cytosolic phospholipase A_2 ($cPLA_2$) protein or a protein immunologically homologous to type IV $cPLA_2$ in or on red blood cells with an antibody to type IV $cPLA_2$ protein.

8. (previously presented) An assay according to claim 1 wherein the red blood cells are isolated from the human body.

9. (canceled)

10. (previously presented) An assay according to claim 2 wherein said disease is a disease or disease process in which type IV $cPLA_2$ activity or concentration is altered from normal levels.

11. (previously presented) An assay according to claim 2 wherein said disease is a disease or disease process in which type IV $cPLA_2$ activity or concentration is increased relative to normal levels.

12. (previously presented) An assay according to claim 2 wherein the disease is schizophrenia, dyslexia, bipolar or manic depressive illness, cachexia or brain injury.

13. (previously presented) An assay according to claim 12 wherein the brain injury is stroke or mechanical brain injury.

14. (previously presented) An assay according to claim 1 wherein the type IV $cPLA_2$ protein or the protein immunologically homologous to type IV $cPLA_2$ has a molecular weight in the range 80 to 110 kDa or in the range 70 to 80 kDa or in the range 50 to 60 kDa.

15. (previously presented) An assay according to claim 1 wherein the type IV $cPLA_2$ protein or the protein immunologically homologous to type IV $cPLA_2$ has a molecular weight in the range 90 to 105 kDa or in the range 70 to 80 kDa or in the range 50 to 60 kDa.

16. (currently amended) An assay for detecting type IV cytosolic phospholipase A_2 ($cPLA_2$) protein or a protein immunologically homologous to type IV $cPLA_2$ ~~according to claim 1 further~~ comprising the steps of:

i) collecting a sample of blood from a subject, and

ii) detecting the proteins ~~*ex vivo*~~.

17. (previously presented) An assay according to claim 16 further comprising one or more of the following steps after obtaining the sample of red blood cells and prior to detecting the proteins:

(a) separating the red blood cells from ~~the~~ other blood components,

(b) disrupting the red blood cells,

(c) separating the proteins ~~directly~~ using a protein separation technique.

18. (previously presented) An assay according to claim 17 wherein the red cells are disrupted by sonication, freezing, nitrogen cavitation or lysis.

19. (cancelled)

20. (currently amended) An assay according to claim 1 wherein said proteins are detected using an antibody or antibodies that recognise an epitope or epitopes from amino acids 82 to 749 of type IV $cPLA_2$ protein from human monocyte ~~(U937)~~ cells.

21. (currently amended) An assay according to claim 1 wherein said proteins are detected using an antibody or antibodies raised against an epitope or epitopes from amino acids 82 to 749 of type IV $cPLA_2$ protein from human monocyte ~~(U937 cells)~~ or raised against an epitope or epitopes of a synthetic peptide matching amino acids 82 to 749 of type IV $cPLA_2$ protein from human monocyte ~~(U937)~~ cells.

22. (currently amended) An assay according to claim 20 or 21 wherein said epitope or epitopes are from a peptide sequence or sequences which comprise the catalytic centre of type IV $cPLA_2$ protein from human monocyte ~~(U937)~~ cells.

23. (currently amended) An assay according to claim 20 or 21 wherein said epitope or epitopes are from the peptide sequence of amino acids 241 to 260 of type IV $cPLA_2$ protein from human monocyte ~~(U937)~~ cells.

24. (currently amended) An assay according to claim ~~19~~ 1 wherein said proteins are detected using an antibody or antibodies raised against an epitope or epitopes from amino acids 1 to 216 of type IV $cPLA_2$ protein from human monocyte ~~(U937)~~ cells.

25. (previously presented) An assay according to claim 20, wherein two or more of the antibodies are used in combination or in sequence to detect the said proteins with the required specificity.

26. (canceled)

27. (withdrawn) A protein obtainable by isolation from red blood cells, said protein being immunologically homologous to type IV $cPLA_2$ and having a molecular weight in the range 80 to 110 kDa or a molecular weight in the range 70 to 80 kDa or a molecular weight in the range 50 to 60 kDa.

28. (withdrawn) A protein according to claim 27, said protein being immunologically homologous to type IV $cPLA_2$ and having a molecular weight in the range 90 to 105 kDa or a molecular weight in the range 70 to 80 kDa or a molecular weight in the range 50 to 60 kDa.

29. (withdrawn) A diagnostic kit comprising means for disrupting red blood cells and further comprising an antibody or antibodies to a protein obtainable by isolation from red blood cells, said protein being type IV $cPLA_2$ protein or a protein immunologically homologous to type IV $cPLA_2$.

30. (withdrawn) A diagnostic kit according to claim 28 wherein said antibody or antibodies is/are raised against an epitope or epitopes from amino acids 82 to 749 of type IV $cPLA_2$ protein from human monocyte (U937) cells.

31. (withdrawn) A diagnostic kit according to claim 28 wherein said antibody or antibodies is/are raised against an epitope or epitopes from a peptide sequence or sequences which comprise the catalytic active centre of type IV $cPLA_2$ protein from human monocyte (U937) cells.

32. (withdrawn) A diagnostic kit according to claim 28, ~~29 or 30~~ wherein said means for disrupting red blood cells is a means for lysing red blood cells.

33. (withdrawn) A diagnostic kit according to claim 28, ~~29 or 30~~ which is suitable for near-patient testing.

34. (new) An assay according to claim 20 or 21 wherein the human monocyte cells are of the U937 cell line.